

Nuclear Material Stabilization and Disposition (RL-0011)

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**DEACTIVATION & DECOMMISSIONING OF 26-INCH PROCESS VACUUM
PIPING,
ROOM 262, 235-5Z BUILDING**



South Canyon Airlock Cleanup



*Completed demolition
of 2904-ZA*

Overview

This section addresses work in Project Baseline Summary RL-0011, *Nuclear Material Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of December 2004.

Notable Accomplishments

Disposition the Plutonium Finishing Plant (PFP) Facility

Completed disposition of 50 percent of legacy holdup material.

The deactivation Notice of Construction (NOC), the final NOC required for conducting all PFP deactivation and decommissioning (D&D) activities necessary to place PFP in a ready for demolition condition, was approved in December by RL, the Environmental Protection Agency, and the Washington State Department of Health. This NOC consolidated and superseded nine existing NOCs.

Progress continues on schedule to demolish ten additional PFP facilities to slab-on-grade by September 30, 2005. Demolition of the eighth building, 2904-ZA, was completed in December. Several punch list items remain for final completion.

A total of 26 billet cans of material have been removed from the 232-Z glovebox. This cleared the way to remove the cyclone separator, the last piece of equipment in the glovebox.

Isolation of transfer pumps in 241-Z to the Tank Farms was completed on December 8, 2004. This completes Tri-Party Agreement milestone M-083-031 more than six months ahead of the June 30, 2005 commitment.

Room 142 hoods one through four, and Room 134 hoods three and four, have been cleaned or decontaminated to low level waste. A total of seven hoods and gloveboxes now meet the low-level waste criteria.

On December 17, 2004 the final documents were approved by RL and the Washington State Department of Ecology to place the 232-Z Demolition Project under the requirements of CERCLA. The Removal Action Work Plan and the Waste Management Plan were both approved by RL and the Regulators.

Issues

Special Nuclear Material (SNM) De-inventory Delay: DOE authorization to allow shipment of Hanford plutonium material to the Savannah River Site (SRS) due by August 30, 2004, has not been received. The continued delay in authorization to ship will result in a delay in completion of the SNM de-inventory of the PFP complex. The Record of Decision, a key document required by DOE prior to issuing the authorization for Hanford to ship SNM to SRS, is not expected now until late January or February 2005.

FY 2005 Funds vs. Spend Forecast (\$M)

| | Projected FY 2005 Funding | FY 2005 Fiscal Year Spend Forecast | Variance |
|---|------------------------------|---------------------------------------|----------|
| Nuclear Materials Stabilization & Disposition | \$ 211.0 | \$ 210.2 | \$ 0.8 |

FY 2005 Schedule/Cost Performance (\$M)

| | Budgeted Cost of Work Scheduled | Budgeted Cost of Work Performed | Actual Cost of Work Performed | Schedule Variance \$ | Schedule Variance % | Cost Variance \$ | Cost Variance % | Budget At Completion |
|---|--|--|--|-------------------------|---------------------------|---------------------|-----------------------|-------------------------|
| Nuclear Materials Stabilization & Disposition | \$45.7 | \$41.3 | \$39.1 | -\$4.4 | -9.5% | \$2.2 | 5.4% | \$215.6 |

Schedule Performance (-\$4.4M/-9.5%): Primary contributors to the unfavorable schedule performance include:

- Delay in packaging and shipment of Special Nuclear Material due to lack of authorization to ship;
- D&D activities behind schedule due to delays in 232-Z, 241-Z and 236-Z D&D; and,
- Delays in solid waste disposal activities due to delayed D&D activities. This negative schedule variance is partially offset by ahead-of-schedule progress on D&D activities to transition 234-5Z.

Cost Performance (+\$2.2M/+5.4%): Primary contributors to the favorable cost variance include:

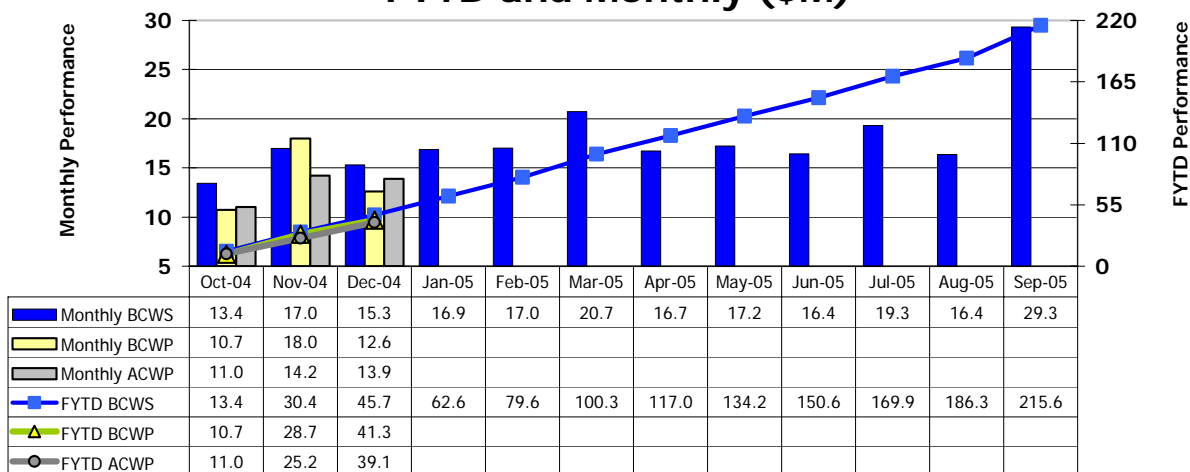
- No costs received for solid waste disposition;
- Use of existing lab and SNM de-inventory teams to accelerate 234-5Z process equipment removal;
- Efficiencies in 236-Z project support and canyon tank planning and procurement; and
- Lower cost in transition operations support due to a reduction in additional staff required to support D&D activities.

These positive cost variances are partially offset by:

- Dedicated partial staffing for 232-Z and 241-Z D&D work to help recovery actions from earlier schedule delays; and
- Fissile material movement outage and use of overtime to recover schedule in legacy plutonium holdup removal and disposition activities.

FY 2005 Schedule/Cost Performance, continued

Performance Analysis FYTD and Monthly (\$M)



Milestone Achievement

| Milestone Title | Type | Due Date | Actual Date | Forecast Date | Status/ Comments |
|---|-----------|--------------------|-------------|---------------|--|
| Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms | TPA PI | 6/30/05 | 12/13/2004 | ----- | Complete |
| Complete Deinventory of DOE-STD-3013 Containers & Unirradiated Fuel by Shipment to SRS or Other Approved Location | PI | 9/30/06 | | 5/31/07 | BCR Submitted to Document Change |
| Remove and Disposition Pu Holdup in Process Equipment at PFP | PI | 9/30/05 | | 7/31/05 | Ahead of Schedule |
| Transition 10 Facilities to Slab-on-Grade | PI | 9/30/05 | | 6/30/05 | Ahead of Schedule |
| Decontaminate Glovebox HA-20MB | PI | 3/31/06 | 10/28/2004 | ----- | Complete |
| Complete 100% Legacy Pu Holdup Removal and Disposition | TPA | 9/30/06 | | 7/31/05 | Ahead of Schedule |
| Transition 232-Z Bldg Incinerator to Slab-on-Grade | PI TPA | 3/31/06 9/30/06 | | 6/19/06 | Behind Schedule Ahead of Schedule |
| Remove Remaining SNM From PFP Such That Protected Area Not Required | PI | 9/30/06 | | 5/31/07 | BCR Submitted to Document Change |
| Disposition Miscellaneous PFP Nuclear Materials | PI | 9/30/06 | | 9/30/06 | Letter Submitted to Transfer Certain Materials to 3013 Deinventory |
| Transition 241-Z/ZA Facility to Demolition Ready | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Remove or Decontaminate 236-Z Pencil Tanks | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Remove or Decontaminate the 236-Z Process Equipment in Rooms 50 & 60 | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Remove or Decontaminate the Remaining 236-Z Process Equipment | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Remove or Decontaminate 189 Gloveboxes and Hoods in 234-5Z | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Complete 242-Z Initial Entry & Characterization | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Cleanout Pu & Am Contaminated Gloveboxes and Tanks in 242-Z | PI | 9/30/06 | | 9/30/06 | On Schedule |
| Dispose of Approximately 600 Pu Nitrate Containers at PFP | PI | 9/30/06 | | 9/30/06 | On Schedule |